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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,136	03/26/2001	Kenichi Nakanishi	450106-02621	5076

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NEW YORK, NY 10151

EXAMINER
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CHOI, WOO H

ART UNIT	PAPER NUMBER
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2186

13

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/806,136

Applicant(s)

NAKANISHI ET AL.

Examiner

Woo H. Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 7 – 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. The independent claims 7, 11, 15 and 19 recite the limitation “whereby the sectors of said N clusters are continuously arranged across said N storages.” This arrangement of sectors is not disclosed in the specification. Figures 11 and 12 of the instant application show an arrangement where the first N clusters in a segment are arranged continuously across N storages and sectors are arranged continuously within a cluster. Figure 12 clearly shows that all of the sectors are arranged in sequence within a single cluster and Figure 11 clearly shows that any given cluster is within a single storage.

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5. All of the dependent claims are rejected for including the deficiencies of their parent claims as discussed above.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 7 – 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Niijima *et al.* (US Patent No. 5,889,795, hereinafter “Niijima”).

8. With respect to claims 7, 11, 15, and 19 Niijima discloses a nonvolatile memory system (Figure 6) comprising:

a plurality N of nonvolatile storages (Figure 6, Chips 0 – 3) within which at least one cluster (block B10) of data is recorded, with each cluster constructed by a plurality K of sectors (Figure 7, sectors in B<sub>n</sub>0) ;

address designating means for designating an address of the cluster in which data is recorded;

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recording means for recording data into a storage location at the address designated by said address designated means;

wherein, said plurality of storages are divided into a plurality of segments (Figure 6, clusters 1 – n);

each said segment is distributed and arranged into said plurality of storages (Figure 6); and

each said segment is composed of a plurality of clusters (Figure 7), and a first  $N$  clusters ( $B_{n0} - B_{n3}$ ) of a given segment each having first to  $K$ th entire sectors successively stored in first to  $K$ th memory locations (each block contains  $K$  successive memory locations each of which stores a sector), respectively, of a corresponding, one of said  $N$  storages, whereby the sectors of said  $N$  clusters are continuously arranged across said  $N$  storages (Figure 7, sectors are arranged continuously across  $N$  storages).

9. With respect to claims 8, 12, 16 and 20, an access is performed with reference to a logical cluster address/physical cluster address conversion table that is formed for each segment (col. 2, lines 28 – 37, col. 8, lines 6 – 17).

10. With respect to claims 9, 13, 17, and 21, second sector data is transferred to a second storage and first sector data is written into a first storage immediately after the first sector data is transferred to the first storage (col. 6, line 60 – col. 7, line 9).

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11. With respect to claims 10, 14, 18, and 22, a segment address, a storage address, and a sector address are created for recording data into plural of said nonvolatile storages (These addresses would be necessary to be able to write to a sector in the right block of the right chip in the right cluster).

12. With respect to claims 23 – 26, N is at least three (Figure 6).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Woo H. Choi whose telephone number is (703) 305-3845. The examiner can normally be reached on M-F, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

*whc/mjk*  
whc  
January 8, 2004

  
MATTHEW KIM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100